

REMARKS

Claims 1 through 10 are currently pending in the application.

Applicant notes with appreciation that the Examiner has indicated in the body of the Action that independent claims 9 and 10 remain allowed from a previous Action (page 5). Examiner Nguyen confirmed during a telephone conference on October 13, 2006, that the cover sheet of the Action incorrectly listed claims 9 and 10 as subject to restriction/election, and confirmed that claims 9 and 10 remain allowed.

Applicant further notes with appreciation that claims 2, 4 and 8 would be allowable if rewritten in independent form. However, Applicant has not rewritten claims 2, 4 and 8 as independent claims because Applicant believes that claims 1 through 8 are allowable over the cited art, for the reasons below.

Claims 1 and 3 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,995,476 to Kim (hereafter "Kim"). Claim 1 is an independent claim. Applicant respectfully traverses this rejection.

During a telephone conference on October 13, 2006, Examiner Nguyen confirmed that only claims 1 and 3, and not claims 5 through 7, were to be included under the §102(b) rejection beginning on page 2 of the Action, as claims 1 and 3 are the only two claims for which a basis for rejection under §102(b) is provided. Examiner Nguyen confirmed that claims 5 through 7, although mentioned on page 2 of the Action but having no argument for rejection under this section, were rejected only under 35 U.S.C. §103(a), and will be addressed in the appropriate sections below.

Independent claim 1 provides a mounting arrangement for a laser source and at least one auxiliary electrical component associated therewith. The laser source and the auxiliary electrical component are mounted on a general plane of extension of a submount. The at least

one auxiliary electrical component is mounted on the submount so that a longest dimension of the at least one auxiliary component is at least substantially orthogonal to the general plane of the submount.

Kim discloses an optical pick-up apparatus for recording and/or reproducing information on an optical recording medium, and more particularly, to an optical pick-up apparatus having an optical modular device with two light sources for emitting light beams of different power levels. As shown in Figure 2 of Kim, the two light sources, 41/51, are mounted on opposite sides of submount 31 (col. 2, line 6 – 8). However, the two corresponding monitoring photo-detectors, 43/53, however, are “disposed on the upper surface of substrate 22” (col. 2, lines 62 – 63; also lines 14 – 17), and not mounted on submount 31. The two photo-detectors are not to be confused with a separate photo-detector 33 disclosed by Kim (not recited in the Action) that has an entirely different orientation on the submount so as to detect light beams reflected from the recording medium 1 (Fig. 2, ref. 33; col. 2, lines 55 – 57; also col. 2, lines 7 – 9). Photo-detector 33 is mounted on the same submount on which light sources 41/51 are mounted, but, as shown in Figure 2, photo-detector 33 is mounted on the “top” surface of submount 31, while the light sources 41/51 are mounted on the “side” surfaces of submount 31.

Thus, there are several distinguishing features between the apparatus disclosed in Kim when compared with the analogous features recited in claim 1 of the present invention. Notably, the “auxiliary electrical components” (i.e., photo-detectors 43/53) disclosed in Kim are, in fact, *not* mounted on the same “general plane of extension” of the submount as the laser source(s), but rather photo-detectors 43/53 are mounted on a separate and distinct part of the apparatus, namely substrate 22. This is in contrast with the features recited in claim 1 of the present invention, where the “laser source” and the at least one “auxiliary electrical component” are mounted on a general plane of extension of a submount (see, e.g., the illustration of an embodiment of the present invention in Fig. 2, where laser source 2 and auxiliary electrical component 6 are both mounted on the same surface S' of submount S). Furthermore, Kim discloses photo-detectors 43/53 that are mounted with their longest dimensions *parallel* to the plane of the surface of substrate 22, rather than *orthogonal* to that plane (as illustrated in Figure 2 of Kim). This is in

direct contrast with the features recited in claim 1 of the present invention, where the least one auxiliary electrical component is mounted on a submount so that a longest dimension of the auxiliary component is at least substantially orthogonal to the general plane of the submount [on which the auxiliary component is mounted]. Mounting an auxiliary device with its longest dimension substantially orthogonal to the plane of the submount provides the present invention with several benefits that would not be available using the configuration in the cited reference, such as reducing the “footprint” of the component on the submount, more efficient use of space on the surface of the submount, and permitting higher number of components to be assembled over the same area (see, e.g., page 3, line 28 to page 4, line 4).

Therefore, for at least the reasons above, Kim does not disclose or suggest a “mounting arrangement for a laser source and at least one auxiliary electrical component associated therewith, said laser source and said auxiliary electrical component being mounted on a general plane of extension of a submount, wherein said at least one auxiliary electrical component is mounted on said submount so that a longest dimension of said at least one auxiliary electrical component is at least substantially orthogonal to said general plane of said submount,” as recited in claim 1. Accordingly, Kim does not disclose or suggest all of the elements of claim 1, and claim 1 is patentable over Kim.

For at least the same reasons as provided for independent claim 1, dependent claim 3 is patentable over Kim.

Applicant therefore respectfully requests that the rejection of claims 1 and 3 over Kim brought under 35 U.S.C. §102(b) be reconsidered and withdrawn.

Claims 5 and 7 are rejected under 35 U.S.C. §103(a) over Kim, *supra*. Applicant respectfully traverses this rejection.

Dependent claims 5 and 7 depend from independent claim 1, which is described above. Claim 5 recites the mounting arrangement of claim 1, where the at least one auxiliary electrical

component is mounted onto the submount by conductive glue. Claim 7 provides the mounting arrangement of claim 1, further comprising an electrically conductive area or pad onto which both the laser source and the auxiliary electrical component are mounted.

The relevant portions of Kim pertaining to independent claim 1 are described above. However, as acknowledged in the Action at page 4, Kim does not disclose or suggest the features of dependent claims 5 and 7, namely that the at least one auxiliary electrical component is mounted onto the submount using conductive glue (claim 5) or further comprising an electrically conductive area or pad onto which both of the laser source and component are mounted (claim 7).

Because claims 5 and 7 depend from claim 1, the several features of the present invention which distinguish independent claim 1 from those features disclosed or suggested in Kim, as described in detail above, are applicable here as well, notably that the photo-detectors 43/53 in Kim (analogous to the auxiliary electrical components of the present invention) are not mounted on the same surface of the submount as the light sources 41/51, but rather are mounted onto a separate substrate 22, and, as illustrated in Figure 2 in Kim, mounted onto substrate 22 via their longest dimensions that are *parallel* (rather than *orthogonal*) to the surface of the substrate. Because of these distinguishing features, Kim discloses an apparatus that lacks several benefits provided by the present invention, including reducing the “footprint” of the component on the submount, more efficient use of space on the surface of the submount, and permitting higher number of components to be assembled over the same area (application at page 3, line 28 to page 4, line 4). Kim fails to provide any suggestion or incentive that would have motivated the skilled artisan to modify the placement and mounting configuration of the laser sources and the at least one auxiliary electrical component in such a manner as to teach or suggest the features of independent claim 1, and thus fails to do so for dependent claims 5 and 7. Furthermore, although the Action states that it would have been obvious to provide a conductive glue or/and conductive pad to mount electrical components to the submount to “either use the submount as a conductor (chassis) or heatsink,” Kim fails to provide an incentive or suggestion why a skilled artisan would have been motivated at the time of this application to modify the disclosure in Kim to

provide a conductive glue or/and conductive pad to mount the laser sources 41/51 onto submount 31 while the photo-detectors 43/53 are mounted on a *separate* substrate 22 in such a way as to provide an apparatus having the features recited in claims 5 and 7.

Accordingly, Applicant submits that Kim fails to support an obviousness rejection under §103(a) for dependent claims 5 and 7, and respectfully requests that the rejections to claims 5 and 7 be reconsidered and withdrawn.

Claim 6 is rejected under 35 U.S.C. §103(a) over Kim, *supra*, in view of U.S. Patent No. 5,854,867 to Lee, et al. (hereafter “Lee”). Applicant respectfully traverses this rejection.

Dependent claim 6 recites the mounting arrangement of claim 1, where the auxiliary electrical component is in the form of an SMD (Surface Mount Device) component.

The applicable parts of Kim are described above. The Action acknowledges that Kim does not disclose the auxiliary electrical component being in the form of an SMD component. Lee discloses an optical module having lenses aligned on a lens-positioning V-groove (col. 2, line 66 to col. 3, line 1), and is cited in the Action at page 5 as teaching an electrical auxiliary component in the form of an SMD.

For the reasons discussed above, Kim does not disclose or suggest the each of the features recited in independent claim 1, and thus does not do so for dependent claim 6. Lee provides no incentive or suggestion that would have motivated the skilled artisan at the time of this application to modify the teaching of Kim so as to mount the photo-detectors 43/53 in Kim onto the same surface of submount 31 instead of on the separate substrate 22 so as to produce the mounting arrangement having all of the features recited in dependent claim 6.

Accordingly, Applicant submits that Kim fails to support an obviousness rejection under §103(a) for dependent claim 6, and respectfully requests that the rejection to claim 6 brought under §103(a) be reconsidered and withdrawn.

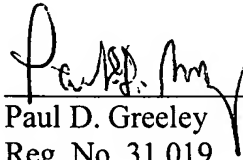
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Therefore, Applicant respectfully submits that claims 1 through 10 are allowable over the cited art, taken alone or in combination, and earnestly solicits the reconsideration and withdrawal of all pending rejections and issuance of a Notice of Allowance.

Respectfully submitted,

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